

P **Centaurea cyanus**

Common Name(s)

Bachelor's Button, Cornflower

How Used

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Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
16	ACETIC-ACID	Flower	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
5	ALUMINUM	Flower	--	--		
101	APIGENIN	Shoot	--	--	Jim Duke's personal files.	
0	APIGENIN-4'-O-(6-O-MALONYL-BETA-D-GLUCOSIDE)-7-O-BETA-D-GLUCURONIDE	Flower	--	--		
0	APIGENIN-4'-O-BETA-D-GLUCOSIDE	Shoot	--	--	Jim Duke's personal files.	
0	APIGENIN-4'-O-BETA-D-GLUCOSIDE-7-O-BETA-D-GLUCURONIDE	Flower	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	APIGENIN-7-GLUCOSIDE	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
4	APIIN	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
4	APIIN	Shoot	--	--	Jim Duke's personal files.	
1	ARNIDIOL	Flower	--	--	Jim Duke's personal files.	
20	BENZOIC-ACID	Flower	--	--	Jim Duke's personal files.	
47	BETA-SITOSTEROL	Flower	--	--	Jim Duke's personal files.	
0	C-GLYCOSYL-FLAVONE-7-O-METHYL-VITEXIN	Flower	--	--	Wealth of India.	
102	CAFFEIC-ACID	Shoot	--	--	Jim Duke's personal files.	
102	CAFFEIC-ACID	Flower	--	--	Jim Duke's personal files.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CENTAUR-X	Shoot	--	--		Jim Duke's personal files.
0	CENTAUR-X	Plant	--	--		Wealth of India.
0	CENTAUR-X-1	Shoot	--	--		Jim Duke's personal files.
0	CENTAUR-X-3	Shoot	--	--		Jim Duke's personal files.
0	CENTAUR-Y	Plant	--	--		Wealth of India.
0	CENTAUR-Y	Shoot	--	--		Jim Duke's personal files.
0	CENTAUR-Y-1	Shoot	--	--		Jim Duke's personal files.
0	CENTAUR-Y-2	Shoot	--	--		Jim Duke's personal files.
0	CENTAUCYANIN	Flower	--	--		Jim Duke's personal files.
77	CHLOROGENIC-ACID	Flower	--	--		Jim Duke's personal files.
77	CHLOROGENIC-ACID	Shoot	--	--		Jim Duke's personal files.
3	CICHORIIN	Flower	--	--		
0	CIS-CAFFEIC-ACID	Flower	--	--		Jim Duke's personal files.
0	CIS-SINAPIC-ACID	Flower	--	--		Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
10	CNICIN	Flower	--	--		Wealth of India.
0	COSMOSSIIN	Shoot	--	--		Jim Duke's personal files.
0	CYANIDIN-3,5-DIGLUCOSIDE	Flower	--	--		
0	CYANIDIN-3-(6'-MALONYL-GLUCOSIDE)	Stem	--	--		Jim Duke's personal files.
0	CYANIDIN-5-O-BETA-D-GLUCOSIDE-3-O-BETA-D-(6-SUCCINYL-GLUCOSIDE)	Inflorescence	--	--		Jim Duke's personal files.
5	CYANIN	Flower	--	--		
0	CYANOCENTAUREIN	Flower	--	--		
0	CYANOCENTAURIN	Flower	975	975		Jim Duke's personal files.
3	CYNAROSIDE	Shoot	--	--		Jim Duke's personal files.
0	FAT	Seed	158000	181000	-0.4444996284388564	
61	FERULIC-ACID	Flower	--	--		Jim Duke's personal files.
0	FRAGARIN	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	GRAVEOBIOSIDE	Shoot	--	--		Jim Duke's personal files.
7	HISPIDULIN	Shoot	--	--		Jim Duke's personal files.
6	IRON	Plant	--	--		
4	ISOCHLOROGENIC-ACID	Shoot	--	--		Jim Duke's personal files.
11	ISORHAMNETIN	Shoot	--	--		Jim Duke's personal files.
75	KAEMPFEROL	Shoot	--	--		Jim Duke's personal files.
75	KAEMPFEROL	Plant	--	--		Wealth of India.
0	KAEMPFEROL-3-O-GLUCOSIDE	Plant	--	--		Wealth of India.
78	LUTEOLIN	Shoot	--	--		Jim Duke's personal files.
78	LUTEOLIN	Plant	--	--		Wealth of India.
3	MUCILAGE	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	N-NONACOSANE	Flower	--	--		Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	NEO-CHLOROGENIC-ACID	Flower	--	--		Jim Duke's personal files.
2	NEO-CHLOROGENIC-ACID	Shoot	--	--		Jim Duke's personal files.
0	O-HYDROXYPHENYLACETIC-ACID	Flower	--	--		Jim Duke's personal files.
25	P-COUMARIC-ACID	Flower	--	--		Jim Duke's personal files.
13	P-HYDROXY-BENZOIC-ACID	Flower	--	--		Jim Duke's personal files.
0	P-HYDROXYPHENYLACETIC-ACID	Flower	--	--		Jim Duke's personal files.
0	PELARGONIDIN-3,5-DIGLUCOSIDE	Flower	--	--		Wealth of India.
0	PELARGONIDIN-3-(6'-SUCCINYL-GLUCOSIDE)-5-GLUCOSIDE	Flower	--	--		
1	PELARGONIN	Flower	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	POLYENES	Plant	--	--		Wealth of India.
0	POLYGALACTURONIC-ACIDS	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	POLYNNES	Plant	--	--		Wealth of India.
0	POPULNIN	Shoot	--	--		Jim Duke's personal files.
0	PROTEIN	Plant	194000	254000	0.6599808093451381	
43	PROTOCATECHUIC-ACID	Flower	--	--		Jim Duke's personal files.
0	PROTOCYANIN	Flower	11.6	11.6		
176	QUERCETIN	Shoot	--	--		Jim Duke's personal files.
1	QUERCETOL	Plant	--	--		Wealth of India.
0	QUERCIMERETRIN	Plant	--	--		Wealth of India.
0	QUERCIMERETRIN	Flower	--	--		
6	QUERCIMERITRIN	Shoot	--	--		Jim Duke's personal files.
4	RUTOSIDE	Plant	--	--		Wealth of India.
34	SALICYLIC-ACID	Flower	--	--		Jim Duke's personal files.
44	SCOPOLETIN	Shoot	--	--		Jim Duke's personal files.
0	SUCCINYLKYANIN	Flower	--	--		
6	SYRINGIC-ACID	Flower	--	--		Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
35	TANNIN	Flower	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	TRANS-CAFFEIC-ACID	Flower	--	--	Jim Duke's personal files.	
0	TRANS-SINAPIC-ACID	Flower	--	--	Jim Duke's personal files.	
0	TRIDECA-3,5,7,9-TETRAIN-1,11-DIEN	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	TRIDECA-5,7,9-TRIIN-1,3,11-TRIEN	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
22	UMBELLIFERONE	Shoot	--	--	Jim Duke's personal files.	

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24	VANILLIC-ACID	Flower	--	--		Jim Duke's personal files.
0	WAX	Flower	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	WAX	Hull Husk	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.